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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/422,758	10/21/1999	CHARLES C. PACKHAM	11223/002001	5962
26161	7590	04/08/2008		
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER PETERSON, KENNETH E	
			ART UNIT 3724	PAPER NUMBER
			MAIL DATE 04/08/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/422,758

Applicant(s)

PACKHAM ET AL.

Examiner

Kenneth E. Peterson

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 38-58 is/are pending in the application.
- 4a) Of the above claim(s) 20, 21, 40, 41, 44, 45, 48 and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19, 38, 39, 42, 43, 46, 47 and 50-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 dec 02 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

1. Examiner Charles Goodman has left the Office. The case has been transferred to Examiner Ken Peterson. The decision by the board of appeals on 20 September 07 has been reviewed.

Therein, the Examiner was affirmed on;

the rejections of claims 16 and 17 under 35 USC 102b,

the rejections of claims 18,19,38,38,42,43,46 and 47 under 35 USC 103,

the rejections of claims 55 and 56 under 35 USC 103,

Accordingly, these three rejections will be maintained.

The Examiner was reversed on;

The rejection of claims 1-15 and 50-58 under 35 USC 102b.

Accordingly, this rejection will be withdrawn.

Also from within the decision, worth noting is that the administrative patents judges (both the majority and the dissenting) agreed that the terms "elliptic", "hyperbolic" and "parabolic" should be given weight as defined in Applicant's specification. Examiner agrees with this decision and will not be giving these terms their normal dictionary definition, but instead will interpret them as defined in Applicant's specification.

2. Due to the availability of additional references that read on the claims, prosecution is hereby reopened to reject claims that currently have no rejection standing against them.

**REJECTIONS AFFIRMED BY THE BOARD OF APPEALS**

(copied verbatim from the Examiner's Answer).

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 16 and 17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Pranjko (DE M9004739.7). See Fig. 1.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 18, 19, 38, 39, 42, 43, 46, and 47 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Pranjko (DE M9004739.7) in view of Packham (GB 2,036,631 A).

Pranjko discloses the invention substantially as claimed. Although Pranjko does not show an under cutter *per se*, it is the Examiner's position that Pranjko's depicted

device would inherently include an under cutter that is oscillatory driven by a driving element due to the fact that the shaving system of Pranjko is a dry shaver with a curved skin engaging surface wherein during operation of the device, a cooperating under cutter is necessary to facilitate the shave. See whole document. However, if it is argued that Pranjko lacks the under cutter and drive element, then Packham clearly teaches a shaving system comprising a curved outer surface 8 which functions as an outer cutter, an under cutter 9 conforming to the outer cutter, and a drive element 4 that oscillates the under cutter for the purpose of providing the positive cutting action for drive shaver systems. See Fig. 2, p. 1, ll. 93-125. Thus, it would have been obvious to the ordinary artisan at the time of the instant invention to provide the device of Pranjko with the under cutter and drive element as taught by Packham in order to facilitate positive cutting action of the dry shaver.

7. Claims 18, 19, 38, 39, 42, 43, 46, and 47 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Pranjko (DE M9004739.7) in view of Furuichi (JP 405049760).

Pranjko discloses the invention substantially as claimed. Although Pranjko does not show an under cutter *per se*, it is the Examiner's position that Pranjko's depicted device would inherently include an under cutter that is oscillatory driven by a driving element due to the fact that the shaving system of Pranjko is a dry shaver with a curved skin engaging surface wherein during operation of the device, a cooperating under

cutter is necessary to facilitate the shave. See whole document. In that regard, Furuichi clearly teaches a shaving system comprising a curved outer surface 2 which functions as an outer cutter, an under cutter 3 conforming to the outer cutter, and a drive element e.g. 4 that oscillates the under cutter for the purpose of providing the positive cutting action for drive shaver systems. See whole document. Thus, it would have been obvious to the ordinary artisan at the time of the instant invention to provide the device of Pranjko with the under cutter and drive element that conforms to the shape of the outer cutter as taught and suggested by Furuichi in order to facilitate positive cutting action of the dry shaver, and since with respect to the conforming shape, such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art, especially since such a change does not render unexpected or unobvious results. *In re Rose*, IO5 USPQ 237 (CCPA 1955).

8. Claims 55-56 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Pranjko (DE M9004739.7).

Pranjko discloses the invention substantially as claimed including what appears to be same material curved regions and end cheek regions. However, if it is argued that Pranjko lacks this feature, then it would have been obvious to the ordinary artisan at the time of the instant invention to provide the device of Pranjko with the same material regions in order to facilitate ease of manufacture due to the same material being used to

produce the same, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

### **REJECTIONS INFERRED BY THE BOARD**

The board supported a rejection under 35 USC 103 of claim 18. Since claim 18 depends from claim 1 and has more than all its limitations, it is clearly inferred that parent claim 1 is also rejectable under the same 103 rejection. Likewise, the board supported a rejection under 35 USC 103 of claim 38. Since claim 38 depends from claim 11 and has more than all its limitations, it is clearly inferred that parent claim 11 is also rejectable under the same 103 rejection. Similarly, the rejection of claim 42 supports a rejection of claim 16, the rejection of claim 46 supports a rejection of claim 17 and the rejection of claim 55 supports a rejection of claims 1 and 10. Accordingly, these 103 rejections are repeated from the Examiner's answer and applied to claims 1,10,11,16 and 17, along with other dependent claims that add nothing not shown by the prior art combination.

9. Claims 1-4,11,13,16-19, 38, 39, 42, 43, 46 and 47 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Pranjko (DE M9004739.7) in view of Furuichi (JP 405049760).

Pranjko discloses the invention substantially as claimed. Although Pranjko does not show an under cutter *per se*, it is the Examiner's position that Pranjko's depicted device would inherently include an under cutter that is oscillatory driven by a driving element due to the fact that the shaving system of Pranjko is a dry shaver with a curved skin engaging surface wherein during operation of the device, a cooperating under cutter is necessary to facilitate the shave. Unfortunately, Pranjko does not show his undercutter. However, Furuichi clearly teaches a shaving system comprising a curved outer surface 2 which functions as an outer cutter, an under cutter 3 conforming to the outer cutter, and a drive element e.g. 4 that oscillates the under cutter along a constantly curved path for the purpose of providing the positive cutting action for drive shaver systems. Thus, it would have been obvious to the ordinary artisan at the time of the instant invention to provide the device of Pranjko with the under cutter and drive element that conforms to the shape of the outer cutter as taught and suggested by Furuichi in order to facilitate positive cutting action of the dry shaver. As seen in Furuichi, the cutter element has a tongues and groove system (30) that allows arcuate sliding of the undercutter. The arcuate path taken must have a constant radius of curvature (if it didn't it would quickly bind). Applying this teaching to Pranjko, if the device is made to have a constant radius of curvature, than it is clearly a section of a trochoid, and thus the screen clearly has a surface section that is hyperbolic and a surface section that is elliptic, as per Applicant's own definitions.

10. Claims 1, 10 and 55-56 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Pranjko (DE M9004739.7).



Pranjko discloses the invention substantially as claimed including what appears to be same material curved regions and end cheek regions. However, if it is argued that Pranjko lacks this feature, then it would have been obvious to the ordinary artisan at the time of the instant invention to provide the device of Pranjko with the same material regions in order to facilitate ease of manufacture due to the same material being used to produce the same, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

#### **REJECTIONS SUGGESTED BY THE BOARD**

On page 5 of the decision handed down on 20 September 07, the Board posits that Pranjko's shaving surface is not explicitly hyperbolic nor elliptic, but adds the following comment "*However, a person of ordinary skill in the art would have found it obvious to provide a shaving cutter of any non-circular shape as Pranjko teaches one non-circular surface merging with a second non-circular surface region.*" This is clearly a suggestion by the Board that modifying Pranjko to make his surfaces hyperbolic and elliptic is considered to be obvious.

11. Claims 1-7, 10-13, 16, 17, 50-54, 57 and 58 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Pranjko (DE M9004739.7), who shows a shaving cutter with all of the recited surfaces, skirts and perforation, as seen in his figures, but Pranjko

does not explicitly state that that these surfaces and skirts are hyperbolic, elliptic and parabolic.

Looking at Applicant's figures and then at Pranjko's figures, one can see that any difference in shape is at most off by a degree or so. For all intents and purposes, they are the same shape. Applicant has made no showing whatsoever that any minute differences in shape between his surfaces and Pranjko's surfaces has any effect on the shaving process. The courts have long ruled that making negligible changes to a device, without changing the operation of the device, is not patentable.

See for example, In re Kuhle, 188 USPQ 7 "*use of such a means.....in lieu of those used in the references solves no stated problem and would be an obvious matter of design choice within the skill of the art*"

See also In re Japikse, 86 USPQ 70, which ruled that the shifting of parts was not patentable "*if the operation of the device would not thereby be modified*".

And perhaps most importantly, see In re Dailey, 149 USPQ 23 "*Applicant's have presented no argument which convinces us that the particular configuration.....is significant or is anything more than one of numerous configurations a person of ordinary skill in the art would find obvious for the purposes.....*".

It would have been obvious to one of ordinary skill in the art to have modified Pranjko by making his surfaces and skirts hyperbolic, elliptic and parabolic, since such minor changes would not effect the operation of the device and are but one of many acceptable solutions.

## **NEW REJECTIONS**

(based on new prior art and new 112 issues)

12. Claims 1-4,16,17,57 and 58 are rejected under 35 U.S.C. 102(b) as being anticipated by Bruecker (3,019,525), who shows a skin engaging surface (30) that is a torus (line 61, column 1) and thus by Applicant's own definition has elliptic, parabolic and hyperbolic surfaces.

In regards to claims 57 and 58, one skilled in the art would appreciate that such screens maintain their general shape regardless of being assembled or disassembled.

13. Claims 50 and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by Brown (6,185,823), who shows in figure 8 a shaving cutter with two convex elliptic end zones. These zones merge smoothly with the shaving region as best seen in figures 11 and 12.

14. Claims 8,9,14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the above rejections applied to claims 1 or 11, and further in view of Wahl (3,098,295).

The prior art, as set forth above, modified or not, does not have elongate slots in the skirt. However, Wahl teaches that such is well known (33). It would have been obvious to one of ordinary skill in the art to have provided a skirt area having elongate

slots, as taught by Wahl, in order to allow for flexibility of the screen to ensure close shaving (Wahl's lines 21-23, column 2).

15. Claims 1-15, 18,19,38,39 and 50-58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims use the terms "elliptic", "hyperbolic" and "parabolic" to describe the shape of surfaces on a razor. Examiner turns to Applicant's specification to determine the scope of these terms. The specification best establishes "elliptic", "hyperbolic" and "parabolic" surfaces in the first five paragraphs of page 1, which refers to pages 568 and 569 of the "VNR Concise Encyclopedia of Mathematics", 2<sup>nd</sup> edition (ISBN 0-442-20590-2), hereafter "VNR". These two pages are attached hereto for further reference.

VNR sets forth an equation for a curved surface, and mathematically defines which surface sections are considered "elliptic", "hyperbolic" and "parabolic". VNR then proceeds to show examples using the shapes of a torus, bell, ellipsoid, cylinder and saddle. To understand, one must visualize perpendicular XY lines lying on the surface and intersecting a given point.

Within the examples;

a given point is on an elliptic surface if the perpendicular XY lines therefrom are both convex,

a given point is on a parabolic surface if XY lines therefrom are a convex line and one of a straight line or transitioning line (transitioning from concave to convex).

A given point is on a hyperbolic surface if the XY lines therefrom are a convex line and a concave line.

From this it appears that anyone could view *any* curved surface and quickly determine whether it was “elliptic”, “hyperbolic” and “parabolic” by plotting perpendicular XY lines lying on the surface and intersecting a point on the surface, and determining whether the XY lines were concave, convex or straight/transitioning.

HOWEVER, contrary to his own definition, Applicant has argued that the inside curve of the Pranjko reference is *not* hyperbolic, and that Pranjko’s outside curve is *not* elliptic, when VNR seems to indicate that they *are* hyperbolic and elliptic as per the examples given. Since Applicant’s remarks contradict his own definition from VNR, it is not clear what weight should be given to these terms, not what curves would or would not infringe.

## **DRAWING OBJECTIONS**

16. The drawings objections and new matter issues set forth in the final rejection have not been addressed by Applicant and accordingly they still stand.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth E. Peterson whose telephone number is 571-272-4512. The examiner can normally be reached on Mon-Thur, 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

kp



KENNETH E. PETERSON  
PRIMARY EXAMINER



Frederick R. Schmidt, Director of TC 3700